

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
9 December 2004 (09.12.2004)

PCT

(10) International Publication Number

WO 2004/106376 A1

(51) International Patent Classification: C07K 16/08,
16/12, 16/14, 16/16, 16/18, A61P 31/00

(21) International Application Number:
PCT/GB2004/002351

(22) International Filing Date: 3 June 2004 (03.06.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0312642.2 3 June 2003 (03.06.2003) GB

(71) Applicant (for all designated States except US): THE
SECRETARY OF STATE FOR DEFENCE [GB/GB];
DSTL, Porton Down, Salisbury, Wiltshire SP4 0JQ (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): HOLLEY, Jane,
Louise [GB/GB]; DSTL, Porton Down, Salisbury, Wilt-
shire SP4 0JQ (GB). MAYERS, Carl, Nicholas [GB/GB];
DSTL, Porton Down, Salisbury, Wiltshire SP4 0JQ (GB).
WHITFIELD, David [GB/GB]; DSTL, Porton Down,
Salisbury, Wiltshire SP4 0JQ (GB). BROOKS, Timothy,
John, Gilby [GB/GB]; DSTL, Porton Down, Salisbury,
Wiltshire SP4 0JQ (GB).

(74) Agent: BECKHAM, Robert, William; D/IPR Formali-
ties Section, Poplar 2, MOD Abbey Wood#2218, Bristol
BS34 8JH (GB).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: COMPOSITIONS COMPRISING LARGE AND SMALL BINDING FRAGMENTS OF ANTIBODIES AGAINST
THE SAME TOXIN

(57) Abstract: A pharmaceutical composition comprising (i) a first specific binding agent selected from an antibody or a large
binding fragment of an antibody which specifically binds a target toxin, and (ii) a second specific binding agent which comprises a
small binding fragment of an antibody which binds said toxin. The compositions are used in the treatment of toxin poisoning, for
example following exposure to toxins such as Botulinum toxins.

WO 2004/106376 A1

BEST AVAILABLE COPY

BEST AVAILABLE COPY